

ABSTRACT OF THE DISCLOSURE

An excavating apparatus having a prime mover with a longitudinal centerline and a main frame (30) with an engine, a ground drive system and an excavation boom operatively attached thereto wherein the excavation boom has a sub-frame (112) with a first end and a second end. The first end of the sub-frame (112) is operatively pivotally attached to the main frame (30) along a main frame pivot axis (114). The main frame pivot axis is transverse to the longitudinal centerline of said prime mover. A head shaft (150) operatively rotatably attached to the second end of said sub-frame (112) along a head shaft axis (151) and the head shaft axis (151) is transverse to the longitudinal centerline of the prime mover. An excavating drum (148) is operatively attached to the head shaft (150) for rotation about said head shaft axis (151). The head shaft (150) is operatively pivotally attached to the second end of said sub-frame (112) along an axis (124) which is fixed with or parallel to a line (124a) which is fixed with respect to said main frame pivot axis (114) and which is substantially perpendicular to said main frame pivot axis (114) whereby the position of the head shaft axis (151) can be adjusted with respect to the position of the main frame pivot axis (114) from a position parallel to said main frame pivot axis (114) to positions not parallel to said main frame pivot axis (114). Also, the excavation drum (148) is mounted onto the head shaft (150) in a manner that the excavation drum (148) cooperates with the excavation chain (142) and a fixed cutter pattern of the excavation chain (142) to stay in consistent alignment with the fixed cutter pattern of the excavation drum (148).